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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------|------------------|
| 10/822,490   | 04/12/2004  | Douglas R. Sanquetti | 14012-022002-72-04-036 | 3029             |
| 26171  | 7590        | 04/19/2005           | EXAMINER               |                  |
| FISH & RICHARDSON P.C.<br>1425 K STREET, N.W.<br>11TH FLOOR<br>WASHINGTON, DC 20005-3500 |             |                      | NGUYEN, THU V          |                  |
|  |             |                      | ART UNIT               | PAPER NUMBER     |
|  |             |                      | 3661                   |                  |

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/822,490

Applicant(s)

SANQUINETTI, DOUGLAS R.

Examiner

Thu Nguyen

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-42 is/are rejected.
- 7) ☒ Claim(s) 43-44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The amendment filed on December 30, 2004 has been entered. By this amendment, claims 1-22 have been canceled, claims 43-44 have been added and claims 23-44 are now pending in the application. The terminal disclaimer submitted on November 12, 2004 has been approved.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 23-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. In claim 23, lines 5-6, the claimed "rotating at least ... of the coordinate system" lacks of connection with other steps in the claim. It is not clear how the rotated polygon should be utilize in determining the location of the monitored device.
- b. Claims 32 and 40 are similarly rejected as explained in claim 23 above.
- c. Other claims are rejected as being dependent on the rejected base claims.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-28, 32-33, 35-37, 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (US 6,581,005) in view of Link et al (US 5,270,937) and further in view of Joshi (US 6,728,392) and Ikeda et al (US 6,185,343).

As per claim 23, Watanabe teaches a method for monitoring a mobile device. The method comprises: defining a route using a plurality of polygons (fig.8; col.18, lines 16-29; col.22, lines 17-21); identifying a set of polygons associating with a particular location of a monitored device and determining the location of the monitored device with respect to the route (col.19, lines 10-14, 23-30; col.22, lines 22-24). Watanabe does not explicitly teach using coordinates to represent the location of the mobile device, comparing the coordinates with the polygons to determine the location of the device, and rotating a polygon such that at least one edge of the rotated polygon is parallel with an axis of the coordinate system. However, Watanabe teaches using GPS or position sensor for detecting the location of the mobile device (col.22, lines 63-66; col.22, lines 4-16), further, representing location of a mobile device in a coordinate system from the data received from the GPS would have been well known.

Moreover, Link teaches determining the relation between a coordinate with a polygon by comparing the coordinates of the polygon with the location coordinates (col.6, lines 48-52); and Joshi suggests determining location of an object by rotating the path of the object to a reference path (col.1, lines 34-37; col.2, lines 59-67; col.3, lines 1-4, lines 56-60) and Ikeda further teaches rotating reference polygon to the closest angle of the polygon representing the position of the

object (col.4, lines 47-66), moreover, selecting a coordinating axis such that the rotation bring an edge of the polygon to parallel a selected axis such as the coordinate axis would have been obvious matter of choice. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use coordinates to represent the location of the mobile object and to compare the coordinate to the coordinates representing the polygons of Watanabe as suggested by Link in order to facilitate determining the polygons that are closest to the mobile device and to rotate the polygon taught by Watanabe in order to quicken recognition of discrepancies or resemblance of the position of the vehicle with respect to the expected travel path of the vehicle.

As per claim 24, Watanabe teaches overlapping polygons (col.18, lines 24-27).

As per claim 25-28, refer to claim 23 above. Further, representing the polygons as rectangle with two sets of coordinates, sequentially matching the position to the selected polygons until a polygon that encloses the position location would have been well known.

As per claim 32-33, 35-37, 39-42, refer to claims 23, 25-28 above. Further, with respect to claim 33, including a locator, a memory, and a processor to the monitor device would have been well known.

5. Claims 29-31, 34, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (US 6,581,005) in view of Link et al (US 5,270,937) and further in view of Joshi (US 6,728,392), Ikeda et al (US 6,185,343) and Klein (US 5,541,845).

As per claim 29-30, 38, refer to claim 1 above. Further Klein teaches identifying departure from the route if the polygons do not enclose the position coordinate of the monitoring device (abstract). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to identify a departure of the route when none polygon of Watanabe contains the position of the object as taught by Klein in order to facilitate determining rerouting to a planned route. Further, initiating a response such as a warning or a recalculation of a navigation route to a destination would have been well known.

As per claim 31, 34, Klein teaches wirelessly transmitting the departure notification to a station (col.4, lines 49-53; col.13, lines 9-15).

***Allowable Subject Matter***

6. Claims 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior arts of record do not disclose a method for monitoring a mobile device taught in claims 23 or 40 in which at least a polygon is rotated such that at least one edge of each rotated

polygon is parallel with an axis of the coordinate system; the set of coordinates for the monitored device is compared with the plurality of polygons to determine a location of the monitor device by identifying that a current polygon comprises rotated polygons, the coordinates for the monitored device is rotated by a rotation angle used to rotate the current polygon, and the rotated coordinates for the monitored device is compared with the current polygon to determine a location of the monitored device with respect to the route.

***Response to Arguments***

8. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Art Unit: 3661

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 14, 2005

  
**THU V. NGUYEN**  
**PRIMARY EXAMINER**